# **m**Emantracourt



## Wireless Analogue Output Module



The T24-AO1 and T24-AO1i provides a configurable analog output for the range of T24 acquisition modules. The T24-AO1i is housed in an IP65 housing for industrial installation whilst the T24-AO1 is designed for desktop mounting with a reduced wireless range of 20 metres.

The output can be selected from the pre-calibrated voltage and current ranges. 0-10 V,  $\pm$ 10 V, 0-5 V,  $\pm$ 5 V, 0-20 mA, 4-20 mA all of which can be used in a 'sink' or source mode.

LED's in the T24-AO1 provides indication of the state of the radio link, remote battery life and remote status. The T24-AO1i uses open collector's outputs to relay this information A digital Input allows for zeroing of the incoming data value. The T24-AO1 modules are easily configured by the T24 Toolkit and a base station.

## Specification at a Glance

- Range of configurable analog outputs including 0-10 V 4-20 mA, 0-20 mA, ±10 V, ±5 V
- Choice of enclosures depending on application
- Simple configuration via PC using base station with Telemetry Toolkit software
- Integrated antenna
- 1 year manufacturer's warranty
- IP rating T24-AO1 IP50, T24-AO1i IP65 / NEMA 4



## User Benefits

- Provide analogue output for T24 acquisition modules
- One to one transmission up to 2 kHz (dependant on acquisition module)
- Industrial & desktop versions available

## **Ideal Application**

- Torque Measurement
- Agriculture
- Automotive
- Civil Engineering



### T24-A01 Product Sheet

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T24-BSi

Radio telemetry base station for USB

RS485 RS232



T24-ACM/ACMi/ACMm Wireless sensor enclosures



T24-SAf Strain gauge to radio telemetry converter 2 kHz

T24-BSu USB Base Station to configure and calibrate T24 products



T24 Toolkit Software used to calibrate and configure your T24 devices

### The Application:

Lotus Engineering, the consultancy division of Lotus Cars Limited, approached Mantracourt to provide a bespoke system of measuring torque on a steering column. This system would need to replace a costly and fragile wiring arrangement with a wireless link system that could be easily re-used.

Lotus required high frequency readings that could be transmitted wirelessly and then decoded and out-putted as a scalable analogue output to integrate with its existing loggers and analytical tools.

### The Solution:

A T24-SAi strain acquisition module was fitted to the strain gauges mounted on the steering shaft transmitting readings at 200Hz. A T24-AO1 analogue output module was used to provide ±10v output for the full scale input on the acquisition module.



The T24-SAi is simply paired to the T24-AO1 which in turn is connected to an existing data logging system which features GPS to give accurate position data to correlate with strain readings. Together, the T24-SA and T24-A01 provide a complete cable replacement.

Storage temperature Operating temperature Relative humidity IP rating T24-AO1 IP rating T24-AO1i

- 40 to +85°C - 40 to +85°C 95% maximum non condensing IP50 IP65 / NEMA 4

**CE Environmental Approvals** European EMC Directive Low Voltage Directive

2004/108/EC 2006/95/EC

